

Intermediate Algebra Brush-Up Session- Quadratics: Quadratic Formula, Vertex, Graphing, Completing the Square

If you placed into MATH 098, this might be useful for you

1. Use the **quadratic formula** to solve. If the answer is complex, write in a + bi form.

a) $x^2 + 5x + 3 = 0$

b) $3x^2 + 1 = x$

c) $x(x + 1) = -4$

$$d) 1 = \frac{3}{x} + \frac{2}{x+3}$$

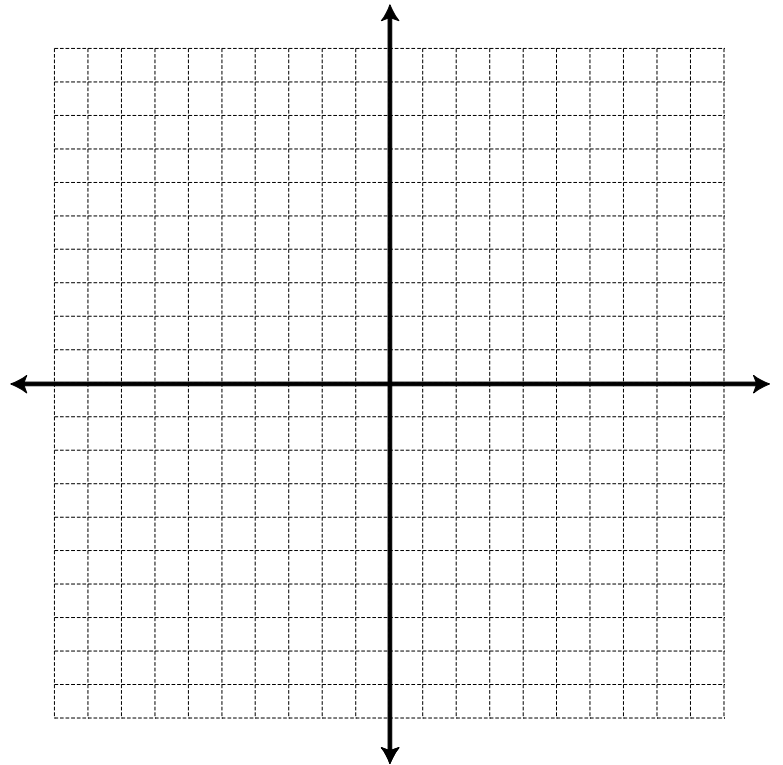
2. Find the vertex:

a) $y = 2x^2 + 8x + 1$

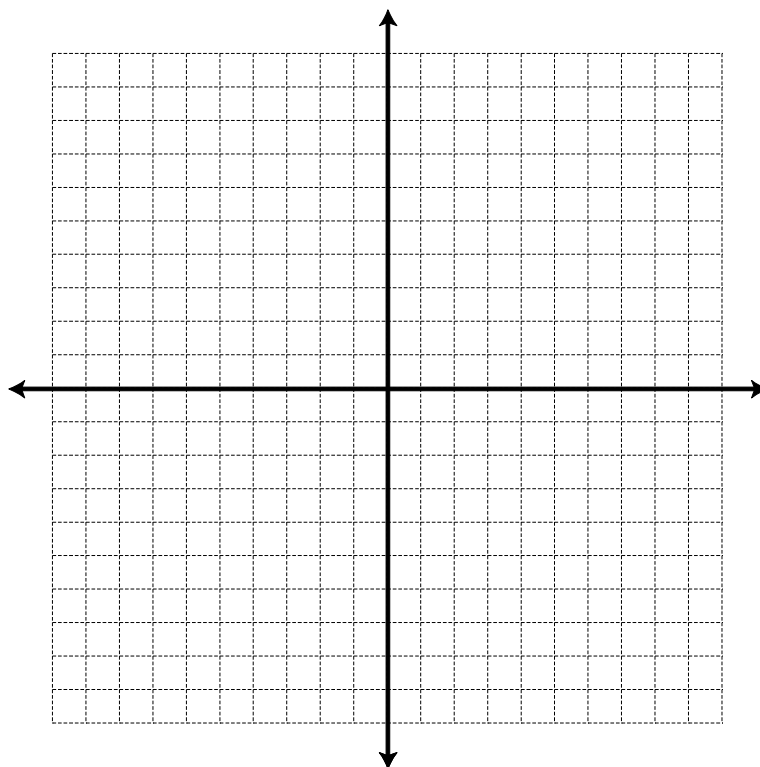
b) $y = -3x^2 + 6x + 2$

3. Graph:

a) $y = 2x^2 + 8x + 1$



b) $y = -3x^2 + 6x + 2$



4. Solve by **completing the square**:

a) $x^2 - 10x + 3 = 0$

b) $x^2 + 16x - 3 = 0$

Need more help? Check out these Modumath Lessons: Intermediate Algebra Skills Lessons 25 & 26 <http://modumath.org/mm/GraysHarbor.html>